

## LISTING OF THE CLAIMS

This listing of claims will replace all prior versions, and listings, of claims in the application:

Claims 1-7 (Canceled).

8. (Currently Amended) A software product loadable in particular in an internal memory of a computer, comprising portions of computer code to perform the following steps:

[[(3°)] (A) measuring, from step (2°) in blood previously taken from a patient, wherein the following hematoc substances as metabolic and/or tissular parameters have been determined, in vitro, in said blood,

- number of red blood cells (GR),

- number of leukocytes (GB),

- hemoglobin (HG),

- number of neutrophils,

- number of eosinophils,

- number of lymphocytes,

- number of monocytes,

- number of platelets,

- lactate dehydrogenase (LDH),

- creatine phosphokinase (CPK),

- thyroid-stimulating hormone (TSH),

- alkaline phosphatases,

- liver (H1 and H2), bone (O1) and/or intestine (I1, I2 and I3) isoenzymes,

- osteocalcin,

- potassium and calcium, and

optionally, at least one of the following substances:

- carcinoembryonic antigen (CEA),

- one or several CA15-3, CA125 and CA19-9 markers,

- acid phosphatases, in particular prostatic acid phosphatase (PAP),

- prostate specific antigen (PSA),
- hourly sedimentation rate (ESR<sub>1</sub>),
- bihourly sedimentation rate (ESR<sub>2</sub>),
- thyroid hormones, in particular triiodothyronine (FT3) and thyroxine (FT4),
- g-glutamyl transpeptidases,
- transaminases,
- chlorides and sodium, and
- adrenocorticotrophic hormone (ACTH);

at least one index selected from the group consisting of following indexes J1-J157:

- J1 a so-called genital ratio index, which is a ratio red blood cells/leukocytes,
- J2 a so-called genital-thyroid ratio index, which is a ratio neutrophils/lymphocytes,
- J3 a so-called adaptation index, which is a ratio eosinophils/monocytes, J3 being such that  $J3 = \text{eosinophils/monocytes} = \text{ACTH/FSH}$ ,
- J4 a so-called thyroid index, which is a ratio LDH/CPK,
- J5 a so-called estrogenic index, which is a ratio TSH/osteocalcin,
- J6 a so-called growth index, which is a ratio bone isoenzymes of the alkaline phosphatases/osteocalcin, ( $\text{O1}/\text{osteocalcin}$ ),
- J7 a so-called turnover index, which is a product  $\text{TSH} \times \text{O1}$
- J8 a so-called fibrosis index, J8 being defined by a relation  

$$\text{J8} = (\text{TSH})^2(\text{osteocalcin})^3/100,$$
- J9 a so-called index of thyroid involvement, which is a ratio CA15-3/CEA,
- J10 a so-called index of follicular involvement, which is a ratio CA125/CEA,
- J11 a so-called index of metabolic-hypothalamic involvement, which is a ratio CA19-9/CEA,
- J12 a so-called pancreatic index, which is a ratio PAP/PSA,
- J13 a so-called global TRH index of adaptation, which is a ratio  

$$\text{CA19-9/TSIH},$$
- J14 a so-called index of leukocytes mobilization, J14 being defined by a relation  $\text{J14} = (\text{platelets} \times \text{neutrophils} \times \text{HG})/(30 \times \text{leukocytes}),$
- J15 a so-called index of platelets mobilization, J15 being defined by a relation  $\text{J15} = \text{platelets}/(60$

x red blood cells),

J16 a so-called index of thyroid reactivating activity, which is a ratio monocytes/lymphocytes,

J17 a so-called structure/function ratio index, J17 being defined by a relation  $J17 = (\text{neutrophils} + \text{basophils} + \text{monocytes}) / (\text{eosinophils} [[x]] + \text{lymphocytes})$ ,

J18 a so-called index of estrogenic fraction #1, which is a ratio lymphocytes/osteocalcin,

J19 a so-called index of estrogenic fraction #2, which is a ratio neutrophils/monocytes,

J20 a so-called index of metabolic estrogenic fraction, which is a ratio LDH/osteocalcin,

J21 a so-called index of thyroid mobilization of bone metabolism, which is a ratio LDH/bone isoenzymes fraction of the alkaline phosphatases,

J22 a so-called index of thyroid mobilization of bone endocrine metabolism, which is a ratio TSH/bone isoenzymes fraction of the alkaline phosphatases,

J23 a so-called index of relative osteomuscular metabolic activity, which is a ratio CPK/bone isoenzymes fraction of the alkaline phosphatases,

J24 a so-called index of thyroid bone metabolic activity, which is a ratio CPK/osteocalcin,

J25 a so-called catabolism/anabolism ratio index, J25 being a ratio  $J2/J1$ ,

J26 a so-called index of circulating cortisol, J26 being a ratio  $J25/J3$ ,

J27 a so-called androgenic index, J27 being a ratio  $J1/J3$ ,

J28 a so-called adrenal cortex index, J28 being a ratio  $J26/J27$ ,

J29 a so-called index of adrenal cortex permissiveness, J29 being a ratio  $J1/J27$

J30 a so-called index of aromatization of estrogens, J30 being a ratio  $J29/J1$ ,

J31 a so-called level of catabolism, J31 being a ratio  $J4/J28$ ,

J32 a so-called level of anabolism, J32 being a ratio  $J31/J25$ ,

J33 a so-called level of metabolic activity efficiency, J33 being defined by a relation  $J33 = (J32+J31) \times 100/2.25$ ,

J34 a so-called index of bone remodeling, which is a product  $TSH \times J6$ ,

J35 a so-called index of nuclear membrane activity, J35 being a ratio  $J5/J6$ ,

J36 a so-called adjusted growth index, J36 being a ratio  $J6/J7$ ,

J37 a so-called anti-growth index, J37 being a ratio  $1/J36$ ,

J38 a so-called somatostatin index, J38 being a ratio  $J37/J26$ ,

J39 a so-called prolactin index, J39 being defined by a relation  
 $J39 = (J38/J6) \times TSH,$

J40 a so-called level of membrane expansion, J40 being a product  
 $J31 \times J36,$

J41 a so-called level of structural expansion, J41 being a product  
 $J32 \times J35,$

J42 a so-called apoptosis index, J42 being a ratio  $J41/J40,$

J43 a so-called adjusted apoptosis index, J43 being a ratio  $J42/J35,$

J44 a so-called level of membrane fracture, J44 being defined by a relation  $J44 = J33/(TSH \times J7),$

J45 a so-called necrosis index, J45 being a ratio  $J44/J42,$

J46 a so-called level of activity of total androgens, J46 being a product  
 $J5 \times J1$

J47 a so-called rate of adrenal cortex androgens, J47 being defined by a relation  $J47 = J46/(1 + J27),$

J48 a so-called rate of genital androgens, J48 being defined by a relation  $J48 = (J46 - J47),$

J49 a so-called progesterone index, J49 being defined by a relation  
 $J49 = J5/(J48 \times J3),$

J50 a so-called level of activity of genital estrogens, J50 being defined by a relation  $J50 = J5/(1 + J30),$

J51 a so-called rate of aromatized estrogens, J51 being defined by a relation  $J51 = J5 - J50,$

J52 the a so-called adrenal cortex index, which is the a ratio  $J25/J1,$

J53 a so-called folliculin index, J53 being defined by a relation  
 $J53 = 20 \times (J5/J49),$

J54 a so-called insulin index, J54 being defined by a relation  
 $J54 = (100 \times J25)/(J7 \times TSH),$

J55 a so-called demyelinization index, J55 being defined by a relation  $J55 = J54/(J36 \times J6),$

J56 a so-called index of DNA fracture, J56 being defined by a relation  
 $J56 = (100 \times J5 \times J6 \times J41)/(J7 \times J35 \times J42 \times J45),$

J57 a so-called index of nucleocytoplasmic pathogenicity, J57 being defined by a relation  $J57 = (1.7 \times J56)/J44$ ,

J58 a so-called index of cellular fracture, J58 being defined by a relation  $J58 = 2.5 \times J44 \times J56/J45$ ,

J59 a so-called index of carcinogenesis, J59 is a ratio  $J57/J42$ ,

J60 a so-called index of comparative carcinogenesis, J60 being defined by a relation  $J60 = (10 \times J58)/J43$ ,

J61 a so-called index of active cellular permeability, J61 being defined by a relation  $J61 = J6 \times J34/J54$ ,

J62 a so-called index of adjusted active cellular permeability, J62 being defined by a relation  $J62 = (J61 \times J29)/J26$ ,

J63 a so-called index of passive cellular permeability, J63 being defined by a relation  $J63 = J45 \times J35 \times J68 \times 10$  (wherein J68 is defined as indicated below),

J64 a so-called index of active intracellular osmolar gradient, J64 being defined by a relation  $J64 = 100 \times J54 \times J40 \times J35/J3$ ,

J65 a so-called index of adjusted active intracellular osmolar gradient, J65 being defined by a relation  $J65 = (J64 \times J29)/J26$ ,

J66 a so-called index of passive intracellular osmolar gradient, J66 being defined by a relation  $J66 = (10 \times J43 \times J53)/(J45 \times J8)$ ,

J67 a so-called oxidation-reduction index, J67 being defined by a relation  $J67 = (100 \times J45 \times J40 \times J41 \times J54)/(J71 \times J8 \times J38)$ , (wherein J71 is defined as indicated below),

J68 a so-called index of corticoadrenal adaptation/permisiveness, J68 being defined by a relation  $J68 = J26 - J29 - J28$ ,

J69 a so-called adaptogenic index which is a ratio K/Ca,

J70 a so-called bMSH/aMSH index, (differential melanocyte-stimulating hormones), J70 being a ratio  $J4/J69$ ,

J71 a so-called apoptosis bis index, J71 being defined by a relation  $J71 = J35/(J36 \times J25)$ ,

J72 a so-called amylosis index, J72 being defined by a relation  $J72 = (J38 \times J53 \times J55 \times TSH)/(J4 \times J5 \times J54)$ ,

J73 a so-called index of amylosis risk, J73 being a ratio J8/J67,  
J74 a so-called index of insulin resistance, J74 being a ratio J38/J54,  
J75 a so-called upstream index #1, J75 being a ratio J4/J9,  
J76 a so-called upstream index #2, J76 being a ratio J4/J10,  
J77 a so-called upstream index #3, J77 being a ratio J4/J11,  
J78 a so-called global upstream index #1, J78 being a ratio J75/J76,  
J79 a so-called global upstream index #2, J79 being a ratio J75/J77,  
J80 a so-called global upstream index #3, J80 being a ratio J76/J77,  
J81 a so-called index of thyroid output #1, J81 being a ratio J4/TSH,  
J82 a so-called index of free radicals, J82 being a ratio J67/J54,  
J83 a so-called adjusted index of free radicals, J83 being defined by a relation  $J83 = (J67 + J64)/(J54 + J74)$ ,  
J84 a so-called comparative index of free radicals, J84 being defined by a relation  $J84 = (J67 + (100 \times J40))/(J54 + J74)$ ,  
J85 a so-called index of free radical nocivity, J85 being defined by a relation  $J85 = ((J82 + J83 + J84) \times J56)/(3 \times J71)$ ,  
J86 a so-called adjusted apoptosis index (B), J86 being a ratio J71/J35,  
J87 a so-called index of active histamine, J87 being defined by a relation  $J87 = (\text{eosinophils} \times \text{platelets} \times J3)/J52$ ,  
J88 a so-called index of potential histamine, J88 being defined by a relation  $J88 = (J87 \times J63)/(\text{potassium} \times J70)$   
J89 a so-called TRH index, which is a ratio TSH/FT4,  
J90 a so-called index of relative intrathyroid TRH activity, which is a ratio FT3/FT4,  
J91 a so-called index of carcinogenic expansion, J91 being a ratio J60/J59,  
J92 a so-called index of cancer potential, J92 being product  
 $J91 \times J54 \times J85$ ,  
J93 a so-called adenosis index, J93 being a ratio J8/J91,  
J94 a so-called ischemia reperfusion index, J94 being defined by a relation  $J94 = 10 \times J34 \times J43/J33$ ,  
J95 a so-called thrombogenic index, J95 being defined by a relation

J95 = 10 x J34 x J42 x J45/J33,  
J96 a so-called thrombotic index, J96 being defined by a relation  
 $J96 = J95 \times J87 \times J1/10,$   
J97 a so-called adjusted genital ratio index, J97 being defined by a relation  $J97 = (J14 \times \text{Red cells}) / (\text{Leukocytes} \times J15) = J14 \times J1/J15,$   
J98 a so-called musculotropic index, J98 being defined by a relation  
 $J98 = J97 \times (\text{CPK}/\text{O1}),$   
J99 a so-called adjusted estrogenic index, J99 being defined by a relation  $J99 = (J5 \times (\text{osteocalcin} + 1)) / (\text{osteocalcin} + 1 - J98),$   
J100 a so-called genital androgeny index, J100 being defined by a relation  $J100 = (J98/\text{J81}) \times J99 \times (J97)^2 / (J3 + J97),$   
J101 a so-called comparative genital androgeny index, J101 being defined by a relation  $J101 = (2 \times (\text{TSH})^2 \times \text{CPK}) / (J4 \times \text{osteocalcin} \times \text{O1}),$   
J102 a so-called "starter" index, J102 being a ratio  $J14/J15,$   
J103 a so-called adjusted index of thyroid reactivating activity, J103 being a product  $J16 \times J2,$   
J104 a so-called pro-inflammatory index, J104 being a product  $J103 \times J69,$   
J105 a so-called index of inflammation, J105 being a product  $J104 \times J45,$   
J106 a so-called comparative index of inflammation, J106 being defined by a relation  $J106 = J105 / (((\text{ESR}_2/2) + \text{ESR}_1)/2) / \text{ESR}_1,$   
J107 a so-called interleukin 1 index, J107 being defined by a relation  
 $J107 = (J16 \times J38) / (J103 \times J37),$   
J108 a so-called DHEA index, J108 being defined by a relation  
 $J108 = (J29 \times J30 \times J47 \times J51 \times J98 \times 1000) / (J49 \times J27 \times J100),$   
J109 a so-called serotonin index, J109 being defined by a relation  
 $J109 = (10 \times J102) / (J54 \times J74),$   
J110 a so-called adjusted demyelination index, J110 being a product  
 $J55 \times J102,$   
J111 a so-called expansiveness index #1, J111 being a ratio  $J36/J35,$   
J112 a so-called expansiveness index #2, J112 being a ratio  $J40/J41,$

J113 a so-called global expansiveness index, J113 being defined by a relation  $J113 = (J111 \times J112)/J45$ ,

J114 a so-called ACTH index, J114 being a ratio  $J108/J26$ ,

J115 a so-called PTH index, J115 being defined by a relation  
 $J115 = (\text{calcium} \times \text{osteocalcin} \times \text{TSH})/J4$ ,

J116 a so-called index of gonadotropic output, J116 being defined by a relation  $J116 = 1/(J1 \times J53)$ ,

J117 a so-called index of pelvic congestion, J117 being defined by a relation  $J117 = (J59/J60) \times (J94/J33)$ ,

J118 a so-called index of splanchnic congestion, J118 being a ratio  $J117/J14$ ,

J119 a so-called growth score index, J119 being defined by a relation  
 $J119 = (J6 \times J37)/(J36 \times J38)$ ,

J120 a so-called GH growth score index, J120 being defined by a relation  $J120 = (J6 \times J37)/J36$ ,

J121 a so-called TRH/TSH ratio index, J121 being a ratio  $J72/J93$ ,

J122 a so-called index of thyroid efficiency, J122 being a ratio  $J4/J2$ ,

J123 a so-called index of relative thyroid efficiency, J123 being a ratio  $J122/J81$ ,

J124 a so-called index of oxidation, J124 being defined by a relation  
 $J124 = (100 \times J36 \times J54 \times J122)/(J74 \times J26)$ ,

J125 a so-called index of reduction, J125 being a ratio  $J124/J67$ ,

J126 a so-called pro-amyloid index, J126 being a product  $J125 \times J74$ ,

J127 a so-called index of amyloid risk, J127 being a ratio  $J8/J124$ ,

J128 a so-called index of thyroid output #2, J128 being a product  $J2 \times J4$ ,

J129 a so-called comparative index of thyroid output, J129 being a ratio  $J128/J81$ ,

J130 a so-called index of estrogenic fraction #3, J130 being a ratio  $1/J1$ ,

J131 a so-called index of estrogenic fraction #4, J131 being a product  
 $J18 \times J19$ ,

J132 a so-called index of estrogenic fraction #5, J132 being a product  
 $J19 \times J130$ ,

J133 a so-called general index of estrogenic fraction, J133 being a product  $J18 \times J19 \times J130$ ,

J134 a so-called index of estrogenic fraction #6, J134 being defined by a relation  $J134 = 1/(osteocalcin \times J2)$ ,

J135 a so-called index of estrogenic fraction #7, J135 being a product  $J18 \times J19 \times J134$ ,

J136 a so-called index of estrogenic fraction #8, J136 being a ratio  $J2/\text{osteocalcin}$ ,

J137 a so-called general quantitative estrogenic index, J137 being a product  $(J18 + J19) \times (\text{leukocytes}/100)$ ,

J138 a so-called index of specific estrogenic fraction, J138 being a product  $J5 \times (J98 + 1)$ ,

J139 a so-called comparative estrogenic index #1, J139 being a ratio  $J133/(J5 \times 100)$ ,

J140 a so-called comparative estrogenic index #2, J140 being a ratio  $J133/(J99 \times 100)$ ,

J141 a so-called global comparative estrogenic index, J141 being a ratio  $J133/(J5 \times J99 \times 100)$ ,

J142 a so-called index of somatotropic estrogenic output, J142 being a ratio  $J133/J144$  (where J144 is defined as indicated below),

J143 a so-called index of quantitative organotissular estrogenic output, J143 being a ratio  $J137/J144$  (where J144 is defined below),

J144 a so-called FSH index #1, J144 being a ratio  $J114/J3$ ,

J145 a so-called LH index #1, J145 being a product  $J114 \times J27$ ,

J146 a so-called FSH index #2, J146 being a ratio  $J145/J1$ ,

J147 a so-called LH index #2, J147 being a product  $J144 \times J1$ ,

J148 a so-called index of progesterone output, J148 being a ratio  $J49/J138$ ,

J149 a so-called ketonic index, J149 being a ratio  $J102/J54$ ,

J150 a so-called index of total subliminal TRH, J150 being a product  $\text{TSH} \times (\text{CA19-9}) \times J90$ ,

J151 a so-called index of active carcinogenesis, J151 being a product  $J59 \times J113$ ,

J152 a so-called comparative index of active carcinogenesis, J152 being a product  $J60 \times J113$ ,

J153 a so-called gonadothyrotropic index, J153 being a ratio TSH/J2,  
J154 a so-called index of global tissular estrogenic fraction, J154 being a ratio J140/J139,  
J155 a so-called index of muscle destruction, J155 being a ratio J36/J101,  
J156 a so-called amyloid score index, J156 being defined by a relation J156 = (J2 x J53 x J72  
x J94 x J110 x J126 x J127)/(J4 x J5 x J67 x J19 x J20),  
J157 a so-called adjusted necrosis index, J157 being a product LDH x J45; and,  
[[(4°)]] (B) comparing at least one of the J1-J157 indexes with [[the]] a corresponding result obtained according to steps (2°) and (3°) with human beings already recognized as being healthy, in order to appreciate dynamically the biological state of the patient to be tested.

9. (Previously Presented) A software product according to claim 8, comprising

- (A) a form field for entering (i) the patient's name or code, (ii) his age, and (iii) his sex, on the one hand, and any known treatment followed by said patient formerly or at the present time, on the other hand;
- (B) a form field for entering (iv) one or several hematic parameters measured *in vitro* from the blood of the patient and (v) the date of the measures;
- (C) a field including all the indexes from J1 to J157, (vii) their calculation mode and (viii) their median values determined from human beings who are recognized as healthy subjects ;
- (D) a command for (ix) the calculation of one index J, of several indexes J or the totality of indexes from the hematic parameters of said field (B) obtained from the blood of the patient to be tested, and (x) for the comparison of the obtained value for at least one of said indexes J with its median value of field (C); and,
- (E) means for classifying, visualizing, editing and/or printing the obtained result by implementing command (D) starting from fields (A), (B), and (C).

10. (Original) A software product according to claim 9, wherein each median value of an index J in an interval of normal values previously determined from subjects recognized as being healthy.

11. (Previously Presented) A software product according to claim 10, which comprises an instruction for recognizing and flagging up any abnormality constituted by a value of an index J which stands away from its median value or interval thereof.

12. (Previously Presented) A software product according to claim 9, which comprises an instruction for recognizing and flagging up any abnormality constituted by a value of an index J which stands away from its median value or interval thereof.

Please add the following new claims:

13. (New) The software product according to claim 8, wherein at least one abnormality is looked for at the level of indexes J1 to J157 of the patient.

14. (New) The software product according to claim 8, wherein (i) at least one index from J1 to J24 and (ii) at least one index from J25 to J157 are looked for in step (A).

15. (New) The software product according to claim 8 wherein, in step (A) a number of indexes selected from the group consisting of at least 8 indexes, at least 10 indexes and at least 15 indexes J are measured.

16. (New) The software product according to claim 8 wherein, in step (A) at least a portion of indexes J1-J157 , which constitute the scores of functions involved in at least one of symptomatology and pathology of the patient to be tested, is measured.

17. (New) The software product according to claim 16, wherein said scores of functions involved in the symptomatology and/or pathology are selected from the group consisting of the scores of pregnancy, menstruation, cardiovascularity, thrombosis, Alzheimer's disease, atherosclerosis, cancer and sudden death risk.

18. (New) The software product according to claim 8 wherein, in step (B), the indexes obtained for a patient to be tested are compared with corresponding median values determined from healthy subjects.